

# FLIGHT

The  
AIRCRAFT  
ENGINEER  
&  
AIRSHIPS

First Aero Weekly in the World

Founder and Editor: STANLEY SPOONER

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport

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## Flight

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## DIARY OF FORTHCOMING EVENTS

*Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in the following list:—*

1926

- July 19–Aug. 7 French Competition for Multi-engined Seaplanes, St. Raphael-Frejus.  
 Aug. 9–15 .... French Light 'Plane Competition.  
 Aug. 21–22 Bournemouth Race Meeting.  
 Sept. 10–18 Two-Seater Light Aeroplane Competition, Lympne.  
 Sept. 18 .... Grosvenor Challenge Cup, at Lympne.  
 Oct. .... Schneider Cup Race at Norfolk, Virginia, U.S.A.  
 Oct. 24–28 .... Coppa del Mare, Italy.  
 Nov. 11–15 .... Coppa d'Italia, Italy.  
 Nov.–Dec. .... Paris Aero Show.

## EDITORIAL COMMENT.

**D**IRECTLY and indirectly, Great Britain has been fairly busy "showing the flag" by air lately. Cobham is hard at work doing it in the East. The flight of two Supermarine "Southamptons" has just returned from a 7,000-miles' cruise to Aboukir and back; and, finally, a British aero engine has won first place in the German seaplane competition at Warnemünde. Perhaps it is significant that in all three undertakings the class of aircraft involved is the seaplane, and it is a somewhat curious coincidence that the three types of craft concerned are all different, one being a single-engined twin-float seaplane, the other a twin-engined biplane flying-boat, and the third a single-engined twin-float low-wing monoplane. Perhaps it is permissible to assume from this fact that there is still room for all three types, according to special requirements.

In the case of the two "Southampton" flying-boats with Napier "Lion" engines, the cruise to Aboukir and back was undertaken as an ordinary service exercise to a pre-determined time-table, and it is indicative of the quality and reliability of modern British aircraft *materiel* that, with the exception of a delay of one day during the latter portion of the return journey, this time-table was adhered to throughout the cruise. In this issue of FLIGHT we publish a brief account of the cruise which, couched, as it is, in terse official language, does not, perhaps, give that touch of picturesque "local colour" with which it would have been invested by a civilian writer describing a flight of a civilian machine, but which is no less valuable on that score. One sentence from the account deserves to be emphasised; it reads as follows: *No trouble whatsoever was experienced either with the aircraft or with the Napier Lion engines with which these machines are fitted.*

When it is remembered that the cruise was one of nearly 7,000 land miles (11,200 km.), and that this distance was covered by two machines, making the flight the equivalent of a flight by a single machine

of close upon 14,000 miles, this is performance indeed. The cruise was a service affair entirely, to be sure, and as such reflects the greatest credit on all concerned, as well as auguring well for the future of service aviation far from a base, but it is, we think, permissible to see in it also a proof of the possibilities of the commercial seaplane operating over Empire routes. And that, to our way of thinking, is not the least merit of the cruise of the "Southamptons."

#### Warnemünde

Another British success has been scored in the seaplane competition just concluded at Warnemünde, in which first place has been gained by a Heinkel HE5 monoplane with Napier "Lion" engine. It has been somewhat difficult to follow as closely as desired all the details of this competition, in which rather complicated formulæ have been used as a basis for the classification. As to the final result, however, there is no doubt whatever, and the Napier Company may well be proud of having thus added another to their already long list of successes. The German seaplane competition was a very strenuous test of both machines and engines, as will be realised when we point out that, in addition to technical performance tests, the machines were required to cover, in the flights along the coasts of the Baltic and North Sea, a total distance of 4,260 km. (2,642 miles) in four days, apportioned as follows:—First day, 946.3 km. (587 miles); second day, 984.3 km. (612 miles); third day, 1,164 km. (717 miles); and fourth day, 1,165.5 km. (724 miles). It may be taken for granted that the long stages during the last two days must have imposed a very severe test on the machines and engines. Finally, the seaworthiness tests, in which machines had to take off and alight three times and afterwards describe a figure of eight on the sea, in a seaway of "magnitude 4," were sufficiently severe on the craft, and, in fact, only three machines succeeded in completing them.

That up to almost the last tests—which were intended to find out the qualities of the machines rather than of the engines—the British engines were well to the fore, emerges from the following facts and figures:—In the final classification in the performance tests first place was held by the Heinkel-Jupiter (No. 10). Third place was secured by the Junkers-Jupiter W34 (No. 8), fifth by the Heinkel-Napier (No. 9), sixth by the L.F.G.-Jupiter V61 (No. 3), and eighth by the Heinkel-Rolls Royce S1 (No. 17).

The performance tests were followed by the coastal flights, in which a large number of competitors dropped out for one reason and another. At the end of these flights but five machines were left, these being No. 10, the Heinkel-Jupiter (first), No. 9, the Heinkel-Napier (second), No. 7, the Junkers-Junkers (third), No. 12, the Heinkel-BMW (fourth), and No. 17, the Heinkel-Rolls Royce S1 (fifth). Thus, three out of the five surviving machines had British engines. Had all the machines succeeded in passing the seaworthiness trials this would have been the order of classification. As it was, No. 10, the Heinkel-Jupiter, damaged both floats during the first landing, and a motor-cruiser rushing to his assistance failed to pull up in time and rammed the machine with such force that the seaplane sank in a very short time. The Heinkel S1-Rolls-Royce (No. 17) damaged a float in the first landing, but this was repaired and a second start and landing made. The official account states that this machine failed in the third landing and thus had

to retire, no detailed explanation being given. With the two machines out of the running, the final classification in the German seaplane competition thus becomes: First, the Heinkel-HE5 with Napier "Lion" engine; second, the Junkers W33, with Junkers L5 engine; and third, the Heinkel HD24 biplane with BMW type IV engine.

#### Paris (Orly)

On August 10 will commence, at the Orly air station outside Paris, the eliminating trials for the competition for *avions économiques* which is being organised by the French Aerial Association. Seventeen machines have been entered, France being represented by seven, Great Britain by two, Holland by two, Czechoslovakia by two, Belgium by two, and Italy by two. The two machines which are to uphold the prestige of Great Britain are de Havilland "Moths," one of which—and, incidentally, the first to be entered—has been entered by Mrs. Elliott-Lynn and the other by the de Havilland Aircraft Company. At the moment we do not know whether or not Mrs. Elliott-Lynn intends to pilot her own machine, but we gather that the other "Moth" will be piloted by Captain Broad. The two "Moths" with their "Cirrus" engines should stand quite a good chance in the competition, since the "Cirrus" is very economical in fuel when suitable jets are fitted, and gives a reasonably high maximum power for the high-speed test. It also seems likely that they will do well in the landing and taking-off tests.

Being of an international character, this competition should prove of considerable interest, and the "Moths" will be matched against some very fine machines of other nations. Among the French machines taking part are two of the Albert-Tellier type on which Thoret has been putting up such splendid long-distance flights. The Czechoslovakian machines are of the well-known Avia type—low-wing monoplanes, with Walter radial air-cooled engines. These also have done very well in their own country, and will doubtless give the pilots of the "Moths" something to think about. At the moment it is not known whether both the two Pander machines representing Holland will be of the biplane two-seater type recently produced at The Hague, but this seems likely. The Pander biplane, given a good engine, is believed to have a very good performance, and is a competitor to be reckoned with. The Belgian and Italian machines are by way of being "dark horses," but this only adds a touch of spice to the competition, which promises to be well worth watching. Every one will wish the "Moths" leading success at Orly.

#### Bournemouth

There is about the programme drawn up for the Bournemouth aviation meeting—published in this issue of *FLIGHT*—a certain touch which is reminiscent of the good old days at Hendon, and for that reason we anticipate two very successful days on August 21 and 22. It is true that a fairly large proportion of the races are of the handicap variety, but, on the other hand, scratch races form a not inconsiderable part of the programme, while, if the handicap races are kept short and the handicapping is good, they can be quite interesting. Bournemouth in August is usually well filled, and so a good attendance may be expected if the meeting is well advertised and the Bournemouth Corporation attends to the transport arrangements, the aerodrome being some distance out of the town.



# THE ARMSTRONG-WHITWORTH "ARGOSY"

## Some Constructional Features Described and Illustrated

THE first of the new three-engined Armstrong-Whitworth "Argosy" passenger-carriers has now been taken over by Imperial Airways, and from what we can gather the machine has created an exceptionally favourable impression at Croydon, where usually critics have no difficulty in discovering features or peculiarities of machines about which

Whitworth Aircraft Works at Whitley Aerodrome, near Coventry, and the following notes and illustrations are a result of this visit.

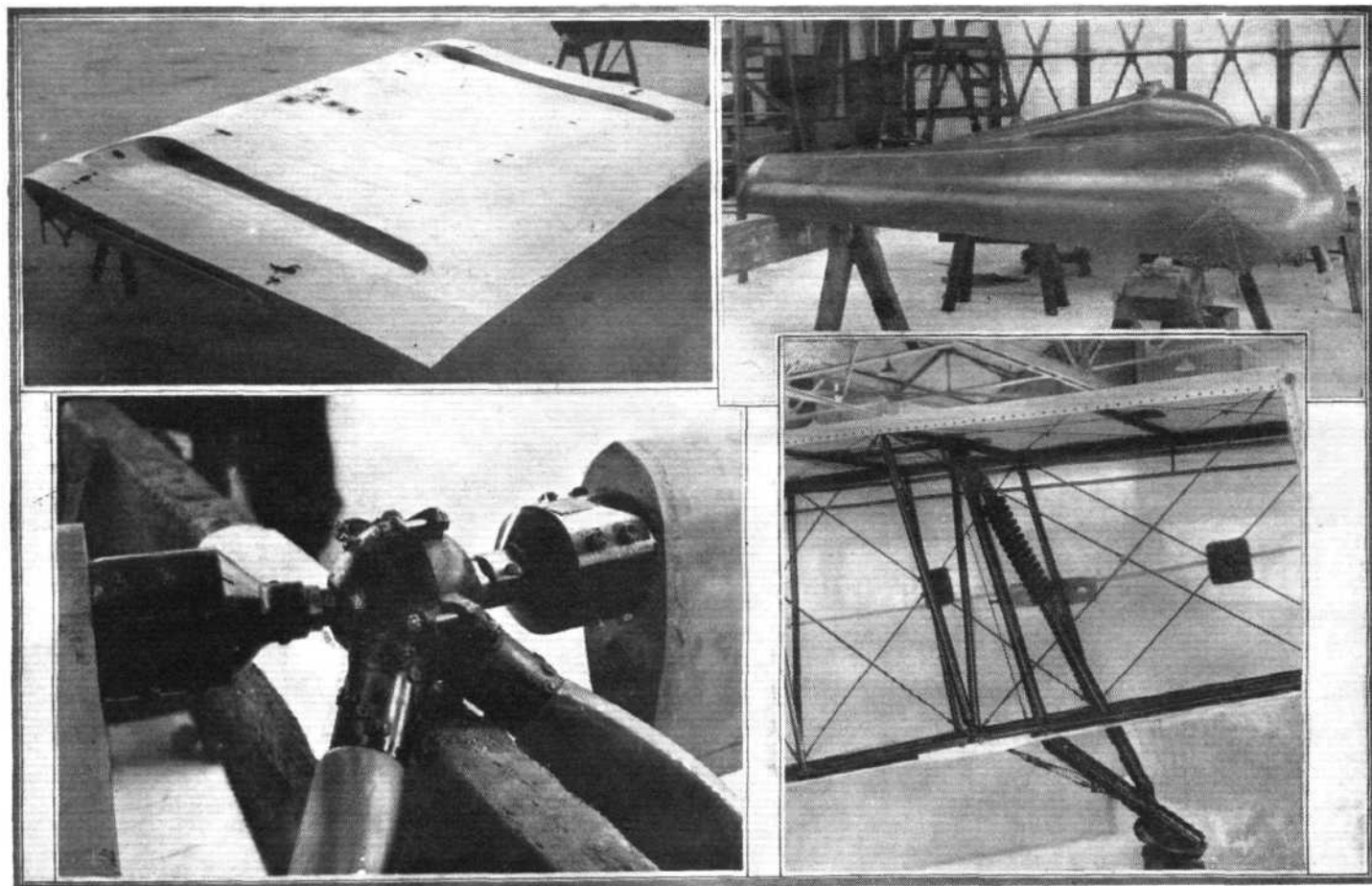
In order to relieve readers of the necessity for turning back to the July 1 issue of *FLIGHT*, we are reproducing again this week the three-quarter front view of the machine, from



THE ARMSTRONG-WHITWORTH "ARGOSY": Three-quarter front view. The port wing engine is hidden by the nose of the fuselage. The engines are Armstrong-Siddeley "Jaguars."

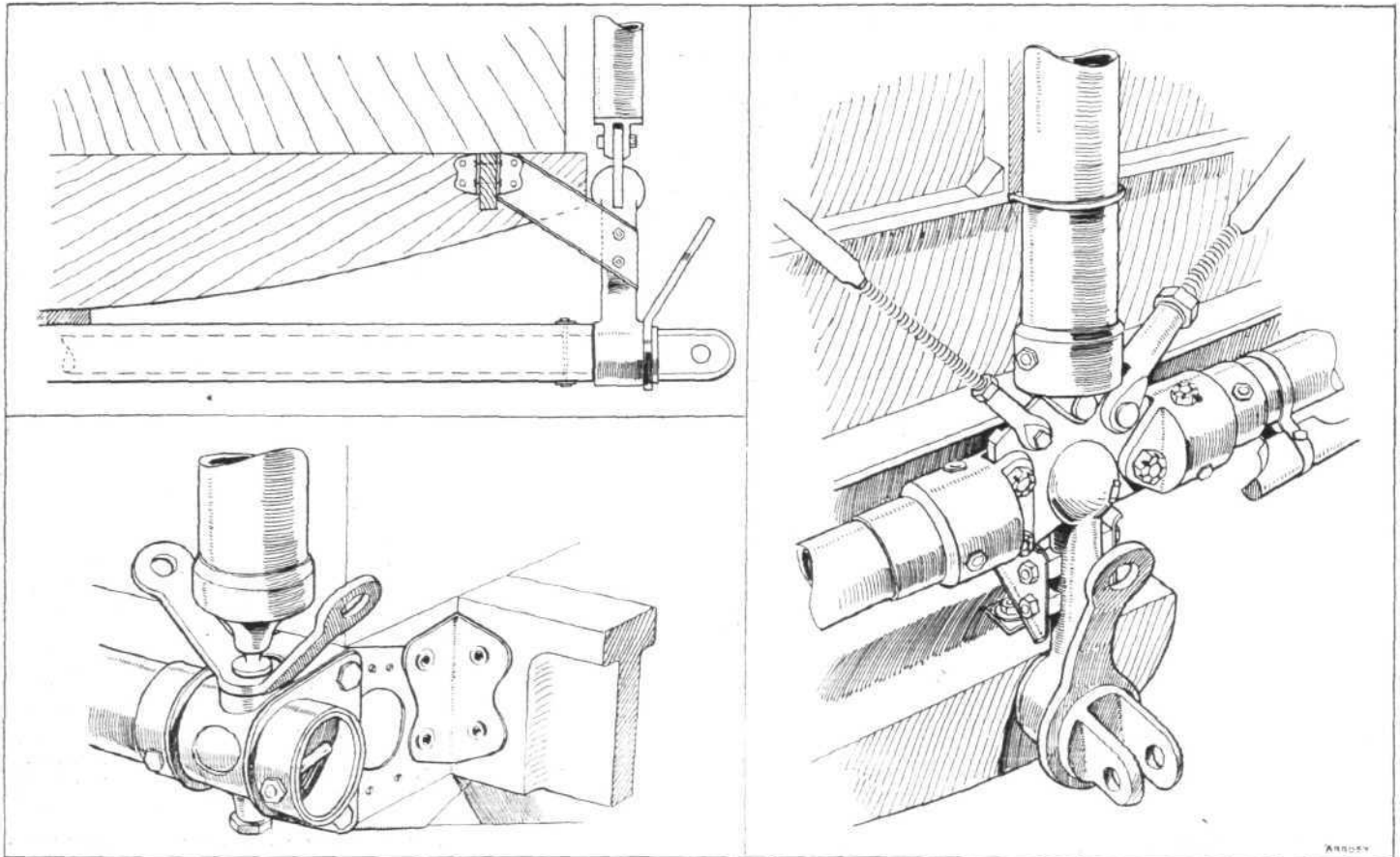
to exercise their wit. A brief general description of the "Argosy," with photographs and general arrangement drawings, was published in our issue of July 1, 1926. Last week we had an opportunity of inspecting one of the "Argosies" in course of construction at the Armstrong

which it will be seen that the "Argosy" is a large biplane of orthodox design, fitted with three Armstrong Siddeley Jaguar engines, and mainly characterised by the considerable forward projection of the fuselage in front of the wings. It is not difficult to realise that with the pilot's cockpit arranged



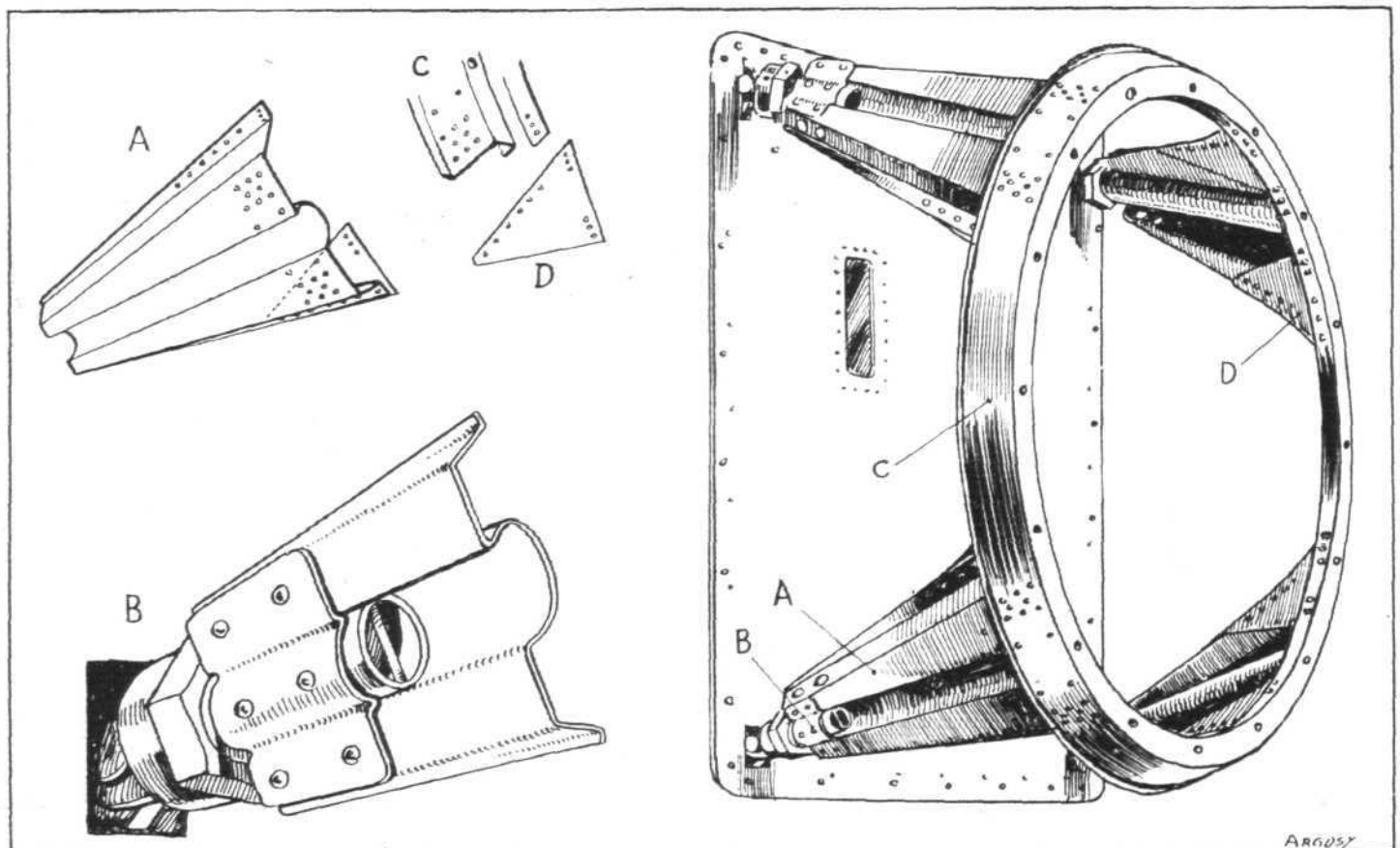
[ " FLIGHT " Photographs ]

THE ARMSTRONG-WHITWORTH "ARGOSY": In the photograph in the upper left-hand corner is shown the top centre-section, lying upside down, with the attachments for the gravity petrol tanks, one of which is shown on the right (also upside down). Ball and socket joints are employed fairly extensively in the "Argosy" a typical one, from the centre of the undercarriage, being shown in the lower left-hand illustration. The substantial tail skid is shown on the right.



[" FLIGHT " Copyright Sketches.

THE ARMSTRONG-WHITWORTH " ARGOSY " : Some constructional details. The sketch in the lower left-hand corner shows a typical pin-joint in the fuselage, while the right-hand sketch represents the fuselage joint at the point where the chassis strut and lower wing spar join the lower longerons of the fuselage. The top left-hand corner sketch is a section through the same point, showing how the beams supporting the floor boards of the cabin are secured by brackets to the vertical struts of the main fuselage structure.

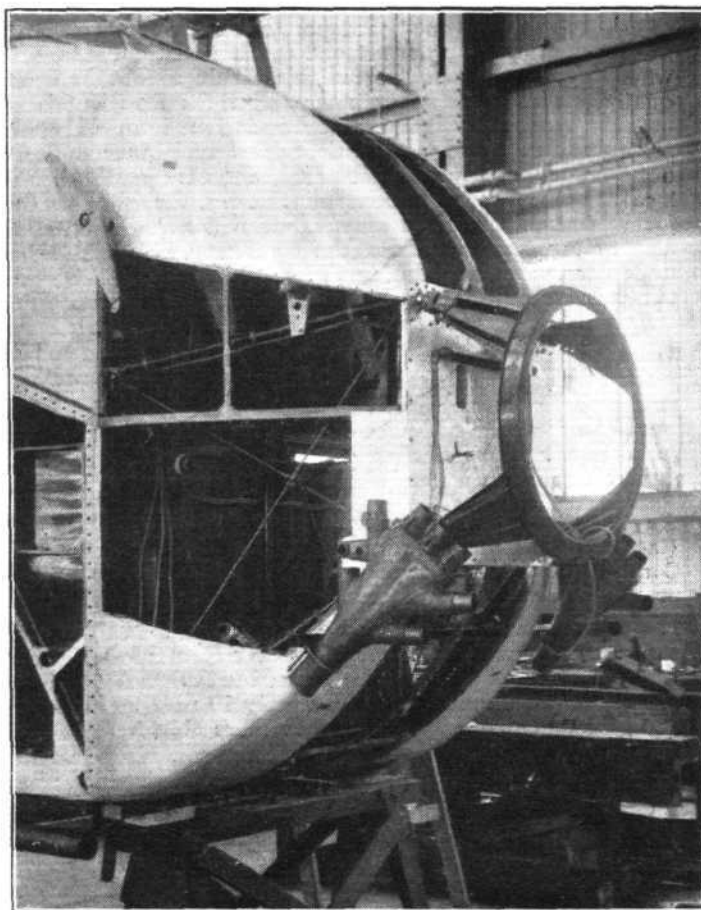


[" FLIGHT " Copyright Sketches.

THE ARMSTRONG-WHITWORTH " ARGOSY " : The engine mounting in the nose of the fuselage is of the cantilever type, stiffness being provided by the corrugated corner brackets, of sheet steel. The absence of diagonal bracing greatly facilitates access to the back of the engine. The mounting with some of its details is shown.

immediately behind the central engine the view in practically all directions is quite exceptionally good, although it seems likely that a pilot may feel somewhat strange in attempting to land this machine for the first time, owing to the fact that as the tail is dropped for a three-point landing, the nose of the machine rises quite considerably, so that the pilot may easily get the feeling that the machine is dropping behind him, and we should imagine that at first there may be a tendency on the part of pilots to land this machine a good deal faster than is necessary, partly because of his somewhat unusual position, and also on account of the very low speed at which the machine is able to keep the air. However, it should not take pilots long to become accustomed to the machine, after which we believe they will soon form a very high opinion of its flying qualities as well as the excellent lay-out of the pilot's cockpit. Constructionally the Armstrong-Whitworth "Argosy" is characterised by a steel tube fuselage and wooden wings, although the centre sections have steel tube spars, for reasons connected with the arrangement of the two wing engines, etc. The fuselage is a plain rectangular section structure, with steel tube longerons and struts braced by tie-rods. The attachment of struts to longerons is of the type shown in one of our sketches, and a feature of the bracing is that the longerons are kept of fairly light gauge and with the main fuselage struts placed relatively wide apart. In order to steady the longerons between supports, hinged auxiliary struts are fitted half-way between the main struts, the diagonal bracing running through the centre of these hinged struts. The arrangement is similar in principle, although different in detail, to that employed in the wing bracing of certain early types of Spad biplane, and still used on almost all Savoia flying-boats. One of our photographs shows an external view of a portion of the cabin in which the arrangement of main and auxiliary struts is shown.

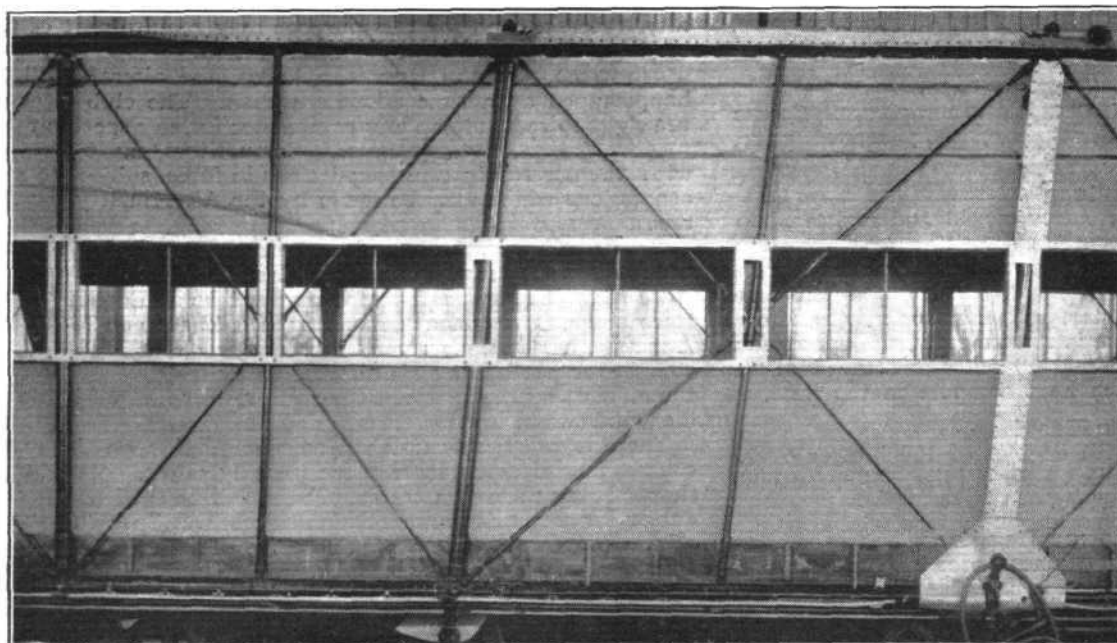
Ball and socket joints are used fairly extensively in the construction of the "Argosy" and one such joint occurs at the point of attachment of the lower wing spars to the fuselage. This is illustrated by a sketch. Another ball and socket joint occurs at the point where the divided wheel axle meets the inverted pyramid cabane, and is illustrated in a photograph. As regards its shock absorbing portion, the "Argosy" shows the typical large diameter large section coil spring with Oleo damping gear, which has been a feature of Armstrong-Whitworth machines for a number of years. In spite of its size only two wheels are used on the "Argosy," these being Palmer wheels of very large diameter.



["FLIGHT" Photograph]

**THE ARMSTRONG-WHITWORTH "ARGOSY":** The mounting of the central engine is somewhat unusual, being of the cantilever variety, which leaves ample space for getting at the back of the engine.

by steel brackets sloping down at an angle, as shown in one of our sketches. Longitudinal stringers running between the transverse beams of the floor serve to support the three-ply



**The Armstrong-Whitworth "Argosy":** The steel tube fuselage has its main struts spaced fairly far apart, and the longerons are stiffened by auxiliary struts, as shown in this photograph of a portion of the cabin. The slope of some of the struts shown corresponds with the stagger of the wings.

["FLIGHT" Photograph]

It is quite an impressive sight to stand at the entrance door to the cabin of the "Argosy," and looking along it, the cabin being more of the size and proportions of a tramcar than typical of a flying machine, and, to the engineer at any rate, the first question which comes to mind in looking at this large cabin is, how the weight of all these passengers is transferred to the tubular structure. Fortunately the machine inspected at Coventry had not yet been covered in as regards this part of the structure, and so it was possible to discover the details of what may be termed the cabin suspension. This is in the form of transverse members which stop short just inside the main steel tube structure, to which it is attached

which forms the floor boards, and thus the weight of the cabin and its occupants is taken direct on to the vertical members of the fuselage structure. The cabin itself is not a complete box of three-ply as is the case, for instance, in the De Havilland "Hercules." It consists mainly of the floor and of a fairly shallow three-ply skirting board rising to the height of a foot or so from the floorboards and serving to protect the fuselage structure against accidental kicks. The cabin walls are for the rest formed of fabric, but a shallow box runs along some distance up the sides and serves as a support for the windows of the cabin.

The wing construction is on normal lines, but it is worthy



of note that in the out-board portions the main spars, which are of spruce, are spindled out to an I-section. At a time when spruce in such lengths is difficult to obtain in good quality, it is perhaps significant that the firm should have insisted upon this somewhat expensive form of spar in preference to taking the line of least resistance and using built-up box section spars. In the centre sections, where local loads are apt to be somewhat heavy, the spars are in the form of circular section steel tubes of generous proportions, and to these are attached the engine mounting struts, the undercarriage struts, and, in the case of the top centre section, the two large gravity petrol tanks.

A type of engine mounting of somewhat unusual form has been adopted in the "Argosy." The "saucepan" which forms part of all Armstrong Siddeley Jaguar engines, is bolted in the "Argosy" to a sheet steel engine plate which is in turn supported on four short cantilever beams joining the fuselage structure at the four corners. The necessary rigidity of this engine structure is provided by the particular design of the four cantilever beams, which are built up from sheet steel corrugated in a manner shown in our illustrations. These four beams provide their own bracing, so that there is a total absence of any diagonal members, with a consequent gain in the ease with which the back of the engine can be reached.

## THE BOURNEMOUTH SUMMER AVIATION RACE MEETING

(Under Competition Rules of Royal Aero Club.)

An Aviation Meeting will be held at the Ensbury Park Racecourse, Bournemouth, on August 21 and 22, under the Competition Rules of the Royal Aero Club. Following is the programme and regulations.

### 1.—Light Aeroplane Club Instructors Scratch Race

Open to standard D.H. "Moths" from each approved Light Aeroplane Club, to be flown by the pilot instructors of the club. Course of approximately 10 miles. First prize, £20; second prize, £10, if four or more starters. Entry to be made by the club.

### 2.—Private Club Handicap

Open to any type of aeroplane entered by any recognised flying club, other than the approved light aeroplane clubs. The pilot must be a member of the club entering. Course approximately 10 miles. First prize, £25; second prize, £10, if four or more starters. Entry to be made by the club.

### 3.—Bournemouth Summer Handicap

Open to any type of aeroplane. Course approximately 20 miles. First prize, £100; second prize, £30, if six or more starters. If flown in heats, the course for each heat will be 10 miles and final 20 miles. The first two in each heat compete in the final.

### 4.—Light Aeroplane Club Members Scratch Race

Open to the approved Light Aeroplane Clubs. Each club must be represented by standard D.H. "Moths" owned by the club, and the pilots must be members and have been entirely trained by the clubs. First prize, £20; second prize, £10, if four or more starters. Entry to be made by the club.

### 5.—Christchurch Sprint (Scratch Race)

Open to standard D.H. "Moth" aeroplanes. Course approximately 10 miles. First prize, £25; second prize, £10, if five or more starters.

### 6.—Private Owners Handicap

Open to all aeroplanes privately owned and registered in the name of an individual. (The definition of "privately owned" is to be at the sole discretion of the Royal Aero Club.) Course approximately 20 miles. First prize, £40; second prize, £20, if four or more starters; third prize, £10, if six or more starters. If the race is run in heats, the course for each heat will be approximately 10 miles and the final 20 miles. The first two in each heat compete in the final.

### 7.—Boscombe High Power Handicap

Open to all aeroplanes with engines of 100 h.p. or over. Course approximately 10 miles. First prize, £30; second prize, £10, if five or more starters.

### 8.—Ensbury Park Low Power Handicap

Open to all aeroplanes with engines under 100 h.p. Course

approximately 10 miles. First prize, £20; second prize, £10, if five or more starters.

### Bomb-Dropping Competition

Competitors will drop bags on certain targets marked on the ground of the racecourse. The bags must be dropped from a height of not less than 100 ft. First prize, £10; second prize, £5. This competition will take place each day and there is no entry fee.

*The programme of events for each day will be fixed after the close of entries. Any of the races may be flown in heats according to the number of entries received. The first two in each heat compete in the final.*

### SUPPLEMENTARY REGULATIONS—I

**Organisation.**—The races will be conducted by the Royal Aero Club under the Competition Rules of the Royal Aero Club.

**Entries.**—The entry fee for each race is 10s. This fee, together with the entry form, must be received by the Royal Aero Club, 3, Clifford Street, London, W.1, not later than 5 p.m. on Friday, August 13, 1926. The entrant is responsible for the accuracy of all particulars supplied by him to the club relating to the aircraft and engine. The officials may require the entrant at his own expense to verify these particulars after the race, and for this purpose may require part of the engine to be taken down for examination.

**Handicap.**—In the Handicap Rules, the aircraft will be handicapped on a time allowance basis. The club reserves the right to re-handicap any competitor for any specific race.

**Air Navigation Regulations.**—Competitors must comply with the Air Navigation Regulations in force, subject to any concessions which may be made by the Air Ministry for the races.

**Course.**—The particulars of the course over which the races will be flown will be announced later.

**Verification of Aircraft.**—Aircraft must be at Ensbury Park Racecourse, Bournemouth, not later than 12 noon on Saturday, August 21, 1926, for verification by the officials. Any competitor not having his aircraft ready for presentation to the officials by the specified time will render himself liable to disqualification.

There is practically no shed accommodation on the racecourse, and if machines require pegging down, competitors should bring their own tackle. There will be shed accommodation for a limited number of folded "Moths," which will be allocated in order of arrival.

Racing will commence each day at 2 p.m.

## COBHAM'S FLIGHT TO AUSTRALIA

MR. ALAN COBHAM, accompanied by Sergt. Ward, left Rangoon on July 27 in the D.H.50J (Siddeley "Jaguar") seaplane en route for Burma. The weather at the start was overcast and as he proceeded on his journey it got stormy, with heavy rains. Flying at times very low, via Moulmein and Mergui, he eventually reached Victoria Point, Burma, over 500 miles distant. Continuing next day, Penang was reached in safety, and a five-hour flight on July 29 brought them to Singapore, where some ex-Service airmen entertained them to dinner.

The following day was spent at Singapore, and on

July 31, after a delay owing to heavy rains, a start was made for Sumatra. They arrived at Muntok in the rain and landed on the open sea, where they remained throughout the night, there being no harbour at Muntok. The D.H.50J rode the gale and rough sea well, and on August 1 they left the bad weather behind them and arrived at noon at Batavia, where a fleet of Dutch Air Force seaplanes met them in the air and escorted them into the harbour. Leaving Batavia at 9 a.m. on August 2, Sourabaya, Java, was reached without incident, and on landing they were given an enthusiastic reception.

# THE CRUISE OF THE "SOUTHAMPTONS"

## Two Supermarines Fly Nearly 7,000 Miles

ON Friday, July 30, 1926, there finished at the Cattewater air station, Plymouth, the first long-distance foreign cruise by Royal Air Force flying-boats. The machines in question were two Supermarine "Southamptons," each fitted with two Napier "Lion" engines, which, under the command of Squadron-Leader G. E. Livock, D.F.C., had by then completed a round flight to Egypt and Cyprus. Each machine carried a crew of four, those to whom fell the honour of taking part in this memorable flight being: Squadron-Leader G. E. Livock, D.F.C. (in command of the flight), Flight Lieutenants B. C. H. Cross, D.F.C., and D. D. Carnegie, A.F.C., Flying Officer L. Martin, Sergt. W. Cushing, Corpl. W. McMeeking, Leading Aircraftman F. Nelson, and Aircraftman 1st Class G. Dunn.

The flight was undertaken as an ordinary Service exercise to a set time-table, with standard Air Force machines, a crew of four and full service load being carried throughout. The programme was adhered to with the exception that, owing to being delayed by a northerly gale at Berre on the return journey, the flying-boats left for Hourtin on July 29 and flew to Plymouth on July 30, one day late.

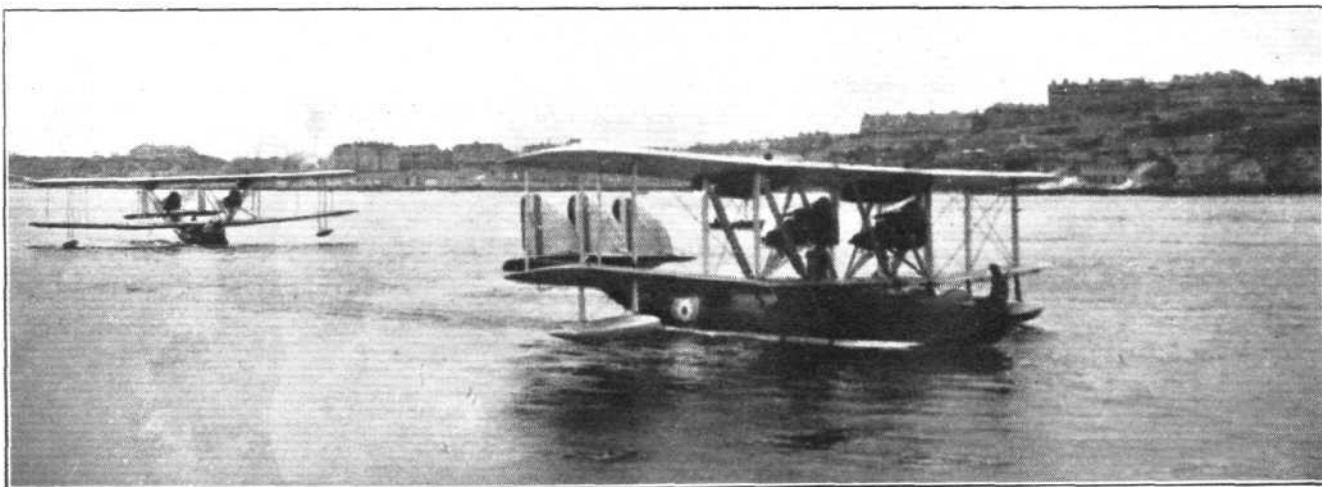
The "Southampton" flying-boat is the type that has been adopted for coastal reconnaissance duties, and a previous successful long-distance flight was carried out last year with the same type of aircraft by No. 480 (coastal reconnaissance) flight in Scottish and Irish waters.

For example, during the flight to and from Hourtin, the flying-boats were in constant wireless telegraphic communication with the R.A.F. station at Cattewater, Plymouth, and during the flight over land from Bordeaux to the Gulf of Lyons the boats listened in for squall warnings and general weather information being distributed from French stations during the hours of the flight.

In the Mediterranean, the flight was in direct communication with the R.A.F. stations at Malta and Ismailia, Egypt. In addition to receiving necessary weather information, the machines were also able to give, from time to time, their position and to indicate the course they were following to the next stopping place. When in touch with R.A.F. wireless stations their position was reported at least every half-hour.

On the flight from Athens to Malta, during the return journey, the following copy of a telegram which was sent by Malta to the Air Ministry shows the routine procedure that was adopted, and illustrates the value of wireless on a long-distance cruise:—

"Position of Southampton flying-boats at 07.15: 39° 18' N., 18° 54' E., track 255°. Position at 07.30: 39° 9' N., 18° 24' E., track 253°. Position at 07.45 hours: 39° 2' N., 17° 58' E., track 254°. Position at 08.00: 38° 55' N., 17° 35' E., track 253°. Position 08.30: Point di Stilo, bearing 290° distant 6 miles, track 220°. Position 08.55: Cape Spartivento, bearing 226°, distant 28 miles, track 220°. Position at 09.00:



**CRUISE OF THE "SOUTHAMPTONS":** The two Supermarine flying-boats, Napier "Lion" engines, arriving at the Cattewater seaplane station, after their successful flight of nearly 7,000 miles.

The total length of the present flight was approximately 6,000 sea miles (6,900 land miles), the machine miles flown being twice that figure.

Starting on July 1 from Cattewater air station, Plymouth, the flight proceeded to Hourtin (Bordeaux) and on the second day the flight crossed France by way of the river Garonne to the seaplane station at Berre near Marseilles.

One day's stay was made at Marseilles, and on July 4, the flying-boats flew to Naples, where another day's stay was made. On July 6 they proceeded to Malta and thence, on July 9, to Benghazi on the North African coast. The next day they went to Aboukir, calling at Sollum for fuel.

During the next week the flying-boats made a flight (by way of Haifa) to Famagusta in Cyprus, and back.

On the return journey a different route was followed during the earlier stages. Leaving Aboukir on July 18 the flight proceeded to Sollum, and left there for Athens on the following day, a stop being made at Suda Bay (Crete) for fuel. Corfu was reached on July 21, and Malta on the 22nd.

The journey to Naples was made on July 25, and Berre was reached on July 26. The final stages were flown as stated above.

No trouble whatsoever was experienced either with the aircraft or with the Napier "Lion" engines, with which these machines are fitted.

The aircraft are equipped with W/T apparatus, and constant communication was maintained throughout with R.A.F. and other wireless stations.

Cape Spartivento, bearing 253° distant 8 miles, track 220°. Position at 09.15: 37° 38' N., 15° 54' E., track 220°. Position at 09.30: 37° 35' N., 15° 48' E., track 220°. Position at 09.45: 37° 22' N., 15° 38' E., track 220°. Position at 10.02: Cape Roca, bears 312°, distant 10 miles, track 220°. Position at 10.15: Passing Cape Murro di Porco, wind S.E., 15 m.p.h. Position at 10.30: Cape Passero, 204°, distant 8 miles, track 204°. Position at 10.50: Cape Passero, bearing 032°, distant 5 miles, track 210°. Position at 11.00: 36° 24' N., 14° 58' E., track 210°. Position at 11.15: 36° 11' N., 14° 48' E., track 210°. Approaching Malta, reeling in."

The machines were moored out to buoys at each port of call, one member of the crew remaining aboard each night for watch-keeping purposes.

The aircraft were refuelled by petrol taken on board by dinghies.

The result of this cruise clearly demonstrates the feasibility of composing a time-table and programme and adhering to it throughout without being impeded by conditions of weather unless extreme, visibility, etc.

Further, it once more proves that these flying-boats are perfectly capable of long-distance flights independently of their bases or of a parent ship.

The reliability of the communications throughout shows also that while the aircraft are in the air, they can be in touch the whole time under normal conditions with shore stations.

On the day of arrival back in England a number of people had gathered at Cattewater to welcome home the flight.





**CRUISE OF THE "SOUTHAMPTONS":** This cheery group at Cattewater includes Squadron-Leader Livock and his companions, and Wing Commander Maycock, O.C. Felixstowe, as well as officers of the Cattewater station.

Wing Commander R. B. Maycock, O.B.E., Officer Commanding at Felixstowe, had arrived with Flight-Lieut. W. E. Staton, M.C., D.F.C., two days previously in a Fairey-Napier IIIb. in order to welcome back his flight. All the morning the station at Cattewater was in touch with the machines by wireless, and notification was received that the "Southamptons" would be over Eddystone Lighthouse at 1 p.m.

At 12.45 p.m. Wing Commander Maycock and Flight-Lieut. Staton set out in the IIIb to meet the "Southamptons," which were picked up punctually at 1 p.m. over Eddystone.

After circling over the pier two or three times, the two

"Southamptons" made a beautiful landing in the Sound, and taxied round to Cattewater, where they were moored to buoys and the crews brought ashore in a dinghy.

The crews, who were in tropical kit and looked exceedingly fit after their long journey, were greeted on landing by Wing Commander Maycock, Flight-Lieut. Staton, and Mr. F. H. Jones, of the Napier firm, who congratulated them on their very successful flight. A telegram was received from the Supermarine Aviation Works, congratulating Squadron-Leader Livock and his companions on their successful cruise.



#### Aviation Events in Czechoslovakia

SEVERAL aviation fixtures have been arranged to take place in Czechoslovakia during the remainder of the present year. The Brno Aeronautical Exhibition, which opened on August 1 closes on August 15. Next month, on September 12, speed races will be held at Prague for the prize presented by the President of the Republic. Speed races on a course of 3 kms. for the "Wandering Prize Štefanik" will also be held in Prague some time in October, whilst in this same month Dr. Vipler's National Height Competition will be decided. Finally, there is a National Distance Competition, for the Aero Club Prize, which is open throughout the year.

#### Potato Spraying from the Air

THE spraying of crops from the air as a protection against disease has met with considerable success in America, but it is only just recently that the aeroplane has been put to this use in this country. Mr. George Caudwell, of Weston, near Spalding—one of the largest potato growers in the British Isles—chartered one of the Savage sky-writing aeroplanes, which flew at a low altitude down and across a 40-acre field of "Majestic" potatoes, discharging a powder over the crops. The whole operation, which in the ordinary way would take two days, was completed in under half an hour.

#### The "Family Flying Boat"

ON July 31, Mr. Robert Mond, brother of Sir Alfred Mond, and a family party of nine, including two children, left Southampton for Dinard in the large twin-engined (Napier "Lion") Supermarine flying boat, piloted by Maj. H. G. Brackley. A successful trip was made to Guernsey, where a stop was made for lunch, after which the journey was safely completed.

#### "To," not "of"

JUST that. And yet what a difference! In the notice last week, on p. 458, of the banquet to Sir Francis McClean, Air Commodore Longmore is credited with having received his initiation into aviation through the "generous assistance of the Admiralty." This should, of course, have been—as written—generous assistance to the Admiralty. That is, it was Sir Francis McClean's generosity which unreservedly

supplied the wherewithal for the four naval pilots to acquire the art of flying—the whole idea at that time being too ridiculous for the Admiralty to bother about. And now! *Autre temps, autre mœurs.*

#### The Flying Accident in Iraq

THE Air Ministry announces:—His Majesty the King has forwarded the following telegram to Sir Samuel Hoare, Secretary of State for Air:—

"I am shocked to learn of the terrible accident in Iraq resulting in the loss of valuable lives. Please send me any further information and I hope the injured are doing well. Will you be good enough to convey the expression of my true sympathy with the relatives."

"GEORGE R. I."

The Secretary of State has replied thanking His Majesty for his gracious message which was at once communicated to the relatives of those who lost their lives.

#### Girier and Dordillet Back

CAPT. GIRIER and Lieut. Dordillet, who recently made a record non-stop flight from Le Bourget to Omsk on a Breguet IXXA (500 Hispano), flew from Moscow to Le Bourget, 1,740 miles, non-stop, in 14 hrs. 30 mins. on July 28.

#### Parachute Mishap

MISS OLIVE STONE ("Aerial") had a narrow escape when making a parachute descent from an aeroplane at the Crystal Palace on July 29. Jumping from the machine, piloted by Capt. Levy, at an altitude of 600 ft., air currents carried the parachute away from the intended landing place towards some houses, with which the parachutist collided. Fortunately, Miss Stone was able to drop safely to the ground without injury.

#### Saved by Parachutes

TWO R.A.F. pilots, Sergts. W. J. Frost and H. C. Steanes, both on Fairey "Fox" machines, collided whilst engaged in practice flights near Andover on July 29. Both pilots jumped from their machines and made safe descents in their parachutes. The machines were wrecked.



# THE GERMAN SEAPLANE COMPETITION

## Heinkel H.E.5 With Napier "Lion" Gains First Prize

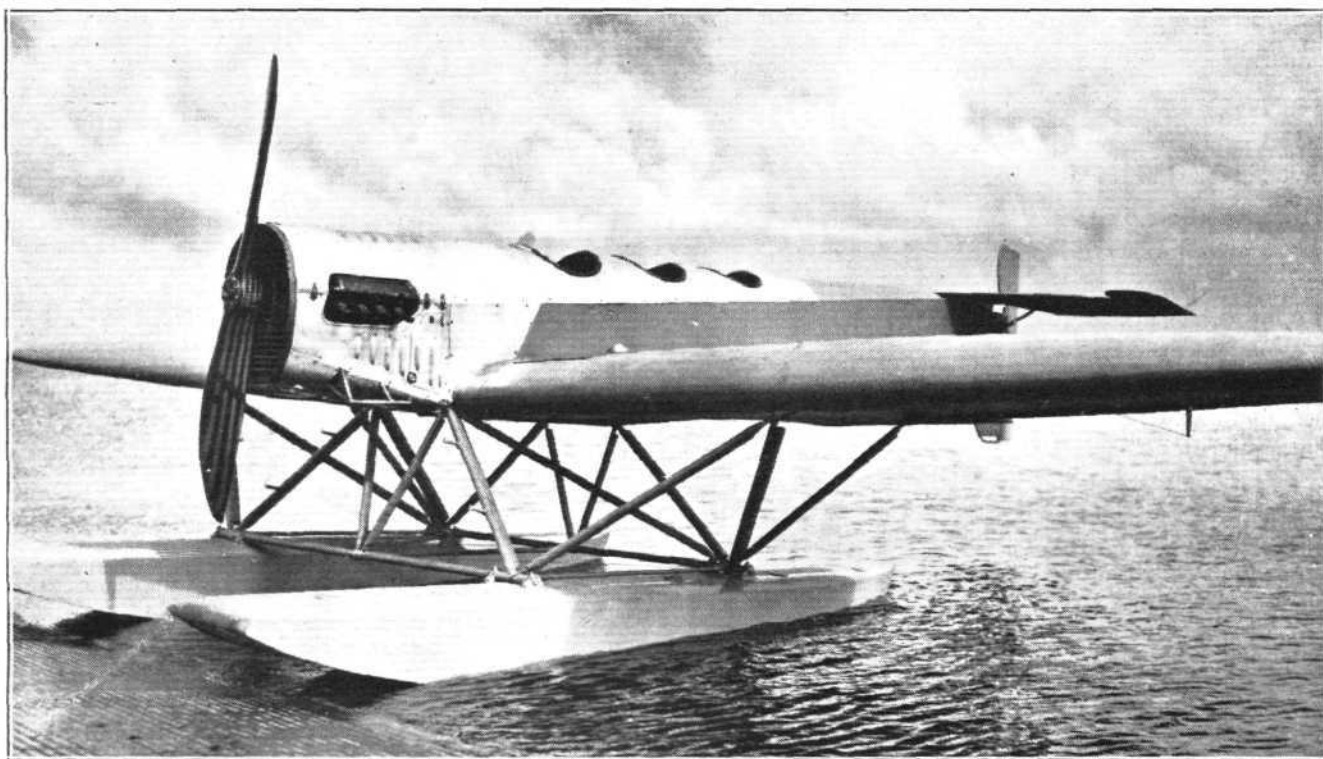
THE final results of the Seaplane Competition just concluded at Warnemünde are now to hand, and it is gratifying to be able to record that first place was gained by the Heinkel H.E.5 with Napier "Lion" engine. This machine carried the No. 9 in the competition. Second place was gained by No. 7, the Junkers W.33, with 300-h.p. Junkers Type L.5 engine, and third place by No. 12, the Heinkel H.D.24 biplane with B.M.W. IV engine. These were the only three machines to complete the entire course, and to carry out all the prescribed tests, the remaining machines having dropped out of the competition for one reason or another.

In connection with the competition, it is of interest, from a technical point of view, to record that certain changes took place in the classification in the performance tests. It was found impossible to carry out simultaneously the performance tests for all the competing machines, and therefore some of the performances were adversely affected, particularly in the climbing tests. In order to enable a fair comparison to be made between the various machines, the climbing times were re-calculated in such a manner as to make them correspond

Royce S.1 failed to carry out his third landing and had to abandon the competition. Thus, the final classification is as follows: First, No. 9, the Heinkel H.E.5 low-wing monoplane with Napier "Lion" engine. Figure of merit 0.530; second, No. 7, the Junkers W.33 low-wing monoplane with Junkers L.5 engine. Figure of merit 0.449; third, the Heinkel H.D.24 biplane with B.M.W. IV engine. Figure of merit 0.375. As the apportioning of the prizes is in some measure governed by the figures of merit obtained, the Heinkel monoplane will gain "the Lion's share" (pardon, no pun intended), the Heinkel biplane being rather a long way behind.

It is of interest to recall briefly the fate of the machines which were fitted with British engines. These were: No. 3, the L.F.G. V.61, with "Jupiter" engine. No. 8, the Junkers W.34, also with "Jupiter." No. 9, the Heinkel monoplane with Napier "Lion." No. 10, the Heinkel monoplane with "Jupiter." Nos. 14 and 15, the Dornier monoplanes with "Jupiters," and No. 17, the Heinkel S.1, fitted with Rolls-Royce "Eagle IX."

No. 3 had to alight, for some unknown reason, on the sea.



**BRITISH SUCCESS IN GERMANY:** First Prize in the seaplane competition, which has just been concluded at Warnemünde, was won by the Heinkel H.E.5 monoplane with Napier "Lion" engine shown in above photograph.

with the climbs which would have been obtained in the climbing tests carried out earlier in good weather conditions, and on this basis the number of marks awarded and the "figures of merit" obtained in the technical performance tests were as follows: No. 10, the Heinkel-Jupiter, 0.647; No. 16, the Junkers A.20, 0.639; No. 8, the Junkers-Jupiter W.34, 0.630; No. 7, the Junkers W.33, 0.606; No. 9, the Heinkel-Napier H.E.5, 0.604; No. 3, the L.F.G.-Jupiter V.61, 0.462; No. 12, the Heinkel H.D.24 biplane, 0.451; No. 17, the Heinkel Rolls-Royce S.1, 0.401; No. 2, the L.F.G. V.60, 0.383; and No. 11, the Heinkel H.D.24, 0.359.

At the end of the coastal flights, the number of machines still in the running was five, and the classification and "figures of merit" of these were as follows: No. 10, 0.565; No. 9, 0.530; No. 7, 0.449; No. 12, 0.375; and No. 17, 0.338. From these figures it will be seen that the machine in the lead was the Heinkel H.E.5 fitted with "Jupiter" engine, with the Heinkel H.E.5-Napier as second, and the Junkers W.33 with Junkers L.5 engine, as third. No. 10, the Heinkel-Jupiter, damaged both its floats in the first landing in the seaworthiness tests, and was rammed by a motor cruiser going to its assistance, and so badly damaged that it sank, the crew being taken on board the vessel. No. 17, the Heinkel Rolls-

off Misdroy on July 28, sustaining such considerable damage that it sank, the crew being saved by a torpedo boat. No. 8 had to alight, on the same day, near a mark boat, but owing to the rough sea it could not be towed in for something like 40 hours. It was ultimately brought to Rossitten, the floats, engine and propeller being reported intact and the damage caused to wings and fuselage only. No. 9, as already stated, won first place, while No. 10, as also already recorded, was rammed and sank. Nos. 14 and 15, the Dornier machines arrived at Warnemünde in time for the competition but were scratched at the last minute, no reason having become known. Finally, the S.1 (No. 17) got as far as the second landing in the seaworthiness tests and then failed for some reason not yet known.

The Bristol-engined machines have, it will be seen, been extremely unlucky, and this is the more regrettable as they had done well in the tests until mishaps overtook them. But for these, scarcely due to the engines, it would appear likely that several "Jupiters" would have been among the first in the final classification. The tests were extremely stiff, and the Napier firm is to be congratulated on its win, which provides one more proof of the qualities of the famous "Lion."



### To be Married

The engagement is announced between HUGH VIVIAN CHAMPION DE CRESPIGNY, M.C., D.F.C., son of Mr. and Mrs. Philip Champion de Crespigny, of Melbourne, Victoria, Australia, and SYLVIA ETHEL, daughter of the Rev. Robert and Mrs. Usher, of Fovant Rectory, Salisbury, Wilts.

The engagement is announced between Flight-Lieut. A. T. S. LEGUEN DE LACROIX, R.A.F., son of E. F. L. Leguen de Lacroix, of Chediston Hall, Chediston, Suffolk, and DORIS ETHEL, only daughter of Mr. and Mrs. CECIL H. BARHAM, of Broadstairs.

The engagement is announced between Lieut.-Commander GEOFFREY LYTTELTON LOWIS, A.F.C., R.N. (Retired), elder surviving son of the late John Lowis, Government Advocate, Rangoon, and Mrs. Lowis, of the White House, Fawkham, Kent, and LALLIE LEE, only daughter of Mr. and Mrs. WALTER GARDNER KENNEDY, of 90, The Fenway, Boston, U.S.A.

### Married

Squadron Leader GILBERT S. M. INSALL, V.C., M.C., eldest son of Mr. and Mrs. G. J. Insall, of Sevington, Kent, was married on July 22, at the Parish Church, Berkhamsted, to OLWEN SCOTT, only daughter of Mr. J. A. YATES, Indian Educational Service, and Mrs. YATES, of Bangalore, India, and Cranham, Berkhamsted.

The marriage took place at St. George's, Hanover Square, on July 8, of Mr. TERENCE HUME LANGRISHE, late Irish Gds. and R.A.F., only surviving son of Sir Hercules and Lady Langrishe, of Knocktopher Abbey, Co. Kilkenny, and Miss JOAN GRIGG, eldest daughter of Major Ralph Grigg, late 18th Hus., and Mrs. Grigg, of 42, Hertford Street, Mayfair.

REV. JOHN TALBOT SKINNER LAW, M.A., R.A.F. (retired), son of the late Benjamin Law, M.A., Barrister-at-Law, was married very quietly on June 30, at St. Mary's Parish Church, Bexley, to MABEL MILNE WORSLEY, widow of Lieut. Reginald Eric Milne Worsley, R.F.C., and daughter of the late STEPHEN MESNARD.

Flying Officer VICTOR MICHELL, R.A.F., of West Mersea, Essex, was married, on June 26, very quietly, in Dunmow, to MARJORIE WALKER, only daughter of the late Mr. Frederick Walker and Mrs. Walker, of Dunmow, Essex.

The marriage took place on July 26, at the Brompton Oratory, of Mr. W. G. SHERBROOKE WALKER, M.C., late R.A.F., son of the Rev. and Mrs. G. Sherbrooke Walker, of March, Cambridgeshire, and LADY BETTIE FEILDING, sixth daughter of the EARL OF DENBIGH, of Newnham Paddox, Lutterworth, and the late Countess of Denbigh.

Capt. W. R. WINTERBOTTOM, R.A.F., was married, on July 1st, to MARJORIE GILLEY, of Tortington Park, Sussex, only daughter of the late John Gilley.

### Deaths

On the 6th July, suddenly, at Widmore, Stoke Mandeville, Aylesbury, WINIFRED MARY, beloved wife of Capt. CHRISTOPHER RIDLEY RICHARDSON, E. York. Regt., and R.A.F., aged 35. Funeral at Wolvercote Cemetery, Oxford.

WILLIAM BORLAND, O.B.E., late Royal Horse Guards and R.A.F., who died on July 9, at Richmond, Surrey, was the eldest son of the late Robert Borland and of Mrs. Borland, Northfield, Falkirk.

## S.B.A.C. LUNCHEON TO LESTER GARDNER

ALTHOUGH it had been arranged at very short notice the luncheon tendered by the Society of British Aircraft Constructors to Mr. Lester D. Gardner, the Editor of our American contemporary, *Aviation*, and a director of the American Aeronautical Chamber of Commerce, was a great success. Capt. P. D. Acland, Deputy Chairman (Aircraft) of the S.B.A.C., was in the chair, and he was supported by Mr. H. T. Vane, Deputy Chairman (Engines), Mr. C. R. Fairey, C.B.E., Past Chairman, and Mr. F. Handley Page.

After the toasts of H.M. the King and the President of the United States had been honoured, the chairman, in proposing the toast of our guest, said he was not quite sure whether he might describe Mr. Gardner's holiday as the Lester Loiter or the Lester Lounge, but he inclined to the latter as a more appropriate description. Lord Thomson of Cardington, in supporting the toast, said that Mr. Gardner had made what might be termed the aerial grand tour, and by covering 21,000 miles in 53 days without stress or strain, sleeping in comfortable beds in hotels or private houses, had shown to what a degree of utility aviation had progressed. He had demonstrated how business people could conduct their negotiations without the worry of lengthy correspondence or the fuss and inconvenience of train and steamship journeys. In responding, Mr. Gardner said that as one who had always been deeply interested in the development of aviation he thought it was up to him when he took a holiday in Europe to see for himself how aviation had really developed over here. He was agreeably surprised at his experiences but he wondered why what he had done should have been considered extraordinary. In 53 flying days he had visited 27 countries and all the principal capitals in Europe, Northern Africa and Iraq, and he supposed he had seen some 1,000,000 square miles of territory. On three consecutive nights he had dined in Moscow, Berlin and London respectively. He had found it a great relief to be able to do without trains, and in that his views were shared by his wife who had accompanied him in some 5,000 miles flying. He thought that "Air Trotting" was much preferable to the old-fashioned "Globe

Trotting." He had flown in many types of British machines—Handley Pages, Vickers, De Havillands, Bristols, etc., with Rolls-Royce, Napier Lion, Armstrong-Whitworth and Bristol engines—and he was especially interested to notice that many foreign machines used British engines, and in the whole of the 21,000 miles he had never had an engine failure nor a forced landing, and both he and his wife had a great respect for British aircraft and engines. Nothing had happened but pleasantness. He also expressed his admiration for the pilots and mechanics to whose work was due that feeling of security on the part of the passengers while the successful operation of the airlines of today was proof of the sound work of the operators and directors. His average speed had been 90 m.p.h. and his flying time was 230 hours, but he estimated that if he had travelled in the old-fashioned way he would have had to spend 900 hours in trains alone. He concluded on a note of admiration for British machines and engines built of the finest material on sound lines, with all the technical skill of the Royal Air Force and the Air Ministry behind them.

Among those present were:—

Air Vice-Marshal Sir W. G. H. Salmond, K.C.B., Air Member for Supply and Research; Air Vice-Marshal Sir W. Sefton Brancker, K.C.B., A.F.C., Director of Civil Aviation; Squadron-Leader A. R. Boyle, O.B.E., M.C.; Sir Sigmund Dannreuther, C.B., Deputy Secretary; Air Commodore A. M. Longmore, C.B., D.S.O., Director of Equipment; Right Hon. Lord Thomson, of Cardington; Rear Admiral M. F. Sueter, C.B.; Lieut.-Commr. Hon. J. M. Kenworthy; Air Vice-Marshal Sir Vyell Vyvyan, K.C.B., D.S.O.; Major G. E. Woods Humphrey; Commr. Don Luis Pillado Ford, Argentine Naval Attaché; Lieut. de Vaisseau J. Bos, French Air Attaché; Major Tinker; Major H. C. Davidson, U.S. Assistant Military Attaché (Aviation); Commr. K. Prestrud, Norwegian Naval Attaché; Capt. Hasegawa, Japanese Military Attaché; Commr. G. Vassiliades, Greek Naval and Air Attaché; Capitan de Corveta Fernando Navarro, Spanish Naval Attaché; Sir Francis McClean, A.F.C.; and Mr. Philip S. Foster.



## AN INTERESTING TRIP WITH A "JUPITER" ENGINE

(Continued from page 464.)

AGAIN the route was over mountainous country leading us past Rome towards the South. In the southern end of Italy the mountains were certainly lower than in the Alpine regions, but still they were sufficiently uninviting, and one was glad to feel that there was no risk of one having to make a closer acquaintance. By the time Foggia was reached, however, the landing conditions had changed enormously. Here vast stretches of low country extends towards the sea, in its way not unlike Salisbury Plain, and the first good open country we had struck since leaving France. Gradually, however, although the contour of the land showed little change, its suitability from an aviation standpoint altered, and by the time we reached Bari, the country was densely cultivated. Mile after mile, with hardly a break, fruit orchards and olive groves appeared to cover the whole of the available ground. The light was failing, so that it became necessary for us to fly quite low and this brought home the appreciation of what a forced landing would mean in this thickly-growing orchard district. It was already dusk when we sighted the two huge airship sheds at Brindisi, and I fired a Very cartridge to get some idea of the wind direction.

boiled egg each for our supper together with wine and bread and a couple of raw eggs for breakfast with wine and bread again to accompany. Even here our Italian friend's courtesy did not end, for he insisted on giving up his own bed to us, in which Col. Minchin was able to turn in about 0.30 after a very hard day's flying. It was an hour later when I retired, but I did not appear to have missed very much for both of us were able to get very little sleep owing to the swarms of hungry mosquitoes which appear to infest this part of Italy. Nor was there much time to seek repose, for at 2 o'clock an Italian officer from the hydroplane station put in an appearance and off to the aerodrome I had to go with him. With the aid of the headlights from two automobiles we were able to get petrol and oil into the machine, and by 4 o'clock once again the Bloodhound was standing in the open ready for a start on the second day's flight of our trip. Customs were not yet cleared and the Italian officer appeared very doubtful about releasing us. It was 5.15 before we were given our freedom, and immediately we started upon our 100 miles trip across the Adriatic Sea, over Corfu, and across the mountainous country of Greece, arriving at Athens at about 9 o'clock.



LONDON-CAIRO WITH A "JUPITER": The Bristol "Bloodhound" at Athens.

Ten minutes after landing at Brindisi the machine was in the hangar and it was totally dark. As a matter of fact Brindisi aerodrome is to-day practically unused and no one was quite able to understand why we had been instructed by the Italian Government that we must land there. As a result there are very few conveniences of any kind. The Maresciallo in charge of the aerodrome with his five assistants were exceedingly anxious to help us in any way they could, but what they could do was very little. No lights were available at the aerodrome or at the sheds and it was only after nearly an hour's search that two small oil lamps were ultimately procured. Even after these had put in an appearance it was not safe to approach with them near to the aeroplane as by feeling in the dark as well as we could I had drained the filters and float chambers of petrol.

So far we had been able to keep to our itinerary and the prospects had seemed bright for our making Cairo within the two days of our leaving Croydon. The engine was running perfectly and the aircraft was in the best possible condition. It was somewhat of a disappointment to us, therefore, to learn that although the petrol for our use was on the aerodrome it could not be had by us until the representative of the petrol company arrived, and he was in Brindisi some 10 miles distant. There was no telephone on the station so that it was impossible either to get in rapid touch with him, with the Customs, or with the military authorities. So we had to send a message hoping that it would receive the quickest possible response.

When we came to think of the inner man the position was little better. No food was available at the aerodrome but the Maresciallo, with the courtesy which one associates with the old Italian aristocrats, insisted on our accepting the whole of his own provisions. These were not much but we had a

Until we arrived near our destination this part of the journey was an exceedingly pleasant one. The engine purred along with an unvarying beat and the miles of sea were eaten up beneath us, whilst the island and coastal scenery was in many ways exceedingly fine. On approaching Athens, however, the air bumps were extremely severe. We were bumped and shaken to such a degree that we were mighty glad to feel our wheels touch the aerodrome.

Officers of the Greek Marine and the representative of the petrol company were ready to meet us and showed us the greatest possible courtesy. The filling up with petrol was at once proceeded with, food was given to us and Col. Minchin was able to snatch half an hour's rest.

It was about 11 o'clock when we started our engine up and left the Athens aerodrome, passing over the town towards the sea. The monumental ruins of the classic city presented from the air a most impressive spectacle. Down the Gulf of Ægina we swept along and just before 1 o'clock we passed over the mountainous island of Crete. From the air, at any rate, this island had eye-compelling characteristics. Sheer down into the sea the mountains ran with never a break to serve for shore, and stretching up at 8,000 ft. they were capped with snow. Over the sea a slight haze spread and there was no horizon. During the four hours' crossing of the Mediterranean not a single boat was seen. Two hours passed between the time that we left the island of Crete behind us before the African coast was sighted. About this part of the trip there was something almost eerie. One could feel the air flying past and the whistle of the wind as it passed our wires, but minute after minute one sped on apparently getting no further through the volume of haze which was spread out in front and which in its turn merged unbroken into the troubled sea.

(To be continued.)

# THE R.A.F. IN TRAINING

DURING the last few weeks three of the R.A.F. training centres have held their "passing out" inspections, and in each case the progress made has been most satisfactory.

July 22 was the occasion of the passing out inspection by Air Vice-Marshal Sir Philip Game, of Aircraft Apprentices (Electrical and Wireless School) at Flowerdown. This was the fourth inspection of apprentices trained there. Altogether there are 228 apprentices under training at Flowerdown, exclusive of this passing-out entry, 198 of which are being trained as wireless operator mechanics, 10 as instrument makers, and 20 as electricians. The report of the Commandant, Group Capt. R. Peel Ross, says that the standard of discipline and drill maintained by the present passing out entry has been above the average, and that the health of the whole of the apprentices has been very good.

The athletic qualifications of this entry have been exceptional, and keenness has been shown in the gymnasium and miniature rifle range. The educational standard attained by this entry has been good and the best of the apprentices are in every way comparable with the best of their predecessors. A high standard has been maintained in the technical sections and workshops, the whole of the syllabus having been covered. Voluntary evening classes have been well attended, and every apprentice has successfully operated wireless instruments in the air.

Of the present entry, 14 have passed out as Leading Aircraftmen, 33 as 1st Class Aircraftmen, 29 as 2nd Class Aircraftmen, and 4 have failed to qualify.

A Cadetship has been offered to No. 364095 E. B. Hughes, who is also the winner of the Hyde-Thomson Memorial Prize, kindly awarded by R. D. Hyde-Thomson, Esq.

The following are retained for the Advanced Course with a view to passing out as Corporals: No. 364260 A. J. Mott; No. 364215 J. Lea; No. 363991 W. Corden; No. 364118 A. S. Jukes.

No. 364260 A. J. Mott, wins the prize offered by the Air Ministry for the aircraft apprentice who obtains the highest aggregate marks in all sections.

No. 364019 L. E. Farrell wins the prize offered by the Air Ministry for the aircraft apprentice who obtains the highest marks in technical subjects.

No. 363932 R. A. Godfell wins the prize offered by the Air Ministry for the aircraft apprentice who obtains the highest marks in educational subjects.

## At Cranwell

July 29 saw the passing-out inspections by Sir Philip Sassoon, Under-Secretary of State for Air, who was accompanied by Air Vice-Marshal Sir Philip Game and Group Capt. McEwin, of the two branches at Cranwell—the R.A.F. Cadet College, and the Aircraft Apprentices' Training School. Below we give extracts from the reports on these two training centres issued by Air Commodore A. E. Borton, Air Officer Commanding:—

*R.A.F. Cadet College.*—The total strength of the Cadet College is 104, of whom 19 are due to pass out this term. The total flying time during the term was 2,954 hrs. 10 mins. The cadets now due to pass out have averaged 77 hours flying, of which 28 hours have been solo on Service types. There was, unfortunately, one fatal accident (the third since the formation of the College in 1920) to Flight Cadet H. F. M. Pickford.

On the whole the standard attained in educational training has been satisfactory. In aeronautical engineering flight cadets showing the most aptitude have been the ex-aircraft apprentices.

A considerable amount of practical instruction in short-wave radio telephony has been carried out with good results.

In musketry training the present first-term cadets have been the first to shoot the R.A.F. Recruit's Musketry Course, and have done exceedingly well.

Instruction has been given in the use and maintenance of parachutes, and 31 officers and 4 cadets have made descents.

The discipline has been good and the under-officers and non-commissioned officers have performed their duties in a most satisfactory manner.

The health of the cadets during the past half-year has been excellent.

In physical training the standard remains high, and the average gain in physical improvement for the term is satisfactory, whilst the standard attained at the Inter-Squadron Sports was equal to the best results of previous years. The College record for the 220 yards hurdles was lowered by two-fifths of a second by Flight-Cadet Francis. The Inter-Squadron Athletic Cup was won by "B" Squadron, for the second year in succession, by 6 points to 5.

The athletic team competed in two contests. The first against Clare College, Cambridge, resulting in a win for Clare College. The second contest was with Queen's College, Cambridge, which resulted in a win for the Cadet College.

The following awards for the term have been won:—

The Sword of Honour, presented to the best all-round flight cadet in the senior term: B. C. Yarde.

The R. M. Groves Memorial Prize, for the best all-round pilot in the senior term: H. A. Purvis.

The Abdy Gerrard Fellowes Memorial Prize for the flight cadet obtaining the highest total marks in mathematics and science: W. L. Freebody.

The Air Ministry prize on humanistic subjects: W. L. Freebody.

The Air Ministry prize in aeronautical engineering: K. F. Brake.

*Aircraft Apprentices Training School.*—At the present time there are 973 aircraft apprentices under training, made up of the following trades:—

1 armourer; 1 carpenter; 6 carpenters, motor body-builder; 197 carpenters, rigger; 39 coppersmiths; 487 fitters, aero engine; 60 fitters, armourer; 92 fitters, driver petrol; 47 fitters, rigger; 43 turners.

The discipline has been good, the standard set by form entries being maintained, while the standard of technical training has undoubtedly improved, this being especially noticeable in basic work. Much benefit has been derived from the engagement of Civilians as Permanent Instructors and the method of posting Service Instructors to the unit for at least three years.

The educational work in the school has made very considerable progress. The entry just passing out has benefited by the greater experience of the education officers and by the continual and increasing co-operation which exists with the technical officers—95.5 per cent. of this entry having qualified as L.A.C. in educational subjects, and 41 per cent. of the entry having obtained the requisite 60 per cent., which exempts them from the studentship examination of the Institute of Mechanical Engineers. The health of the apprentices has been good.

All apprentices have completed Parts 1 and 2 of Table "A" in Musketry, and considering the short time available for preliminary training the results have been most gratifying. V.8 Dormitory of No. 3 Squadron won the Musketry Cup, and Aircraft Apprentice Williams the Cup presented for the highest individual score.

The recent increase in the number of playing grounds has enabled a most comprehensive round of leagues and competitions to be held in all forms of sport. Many outside matches have been played at Rugby football, association, hockey, cricket and tennis, while the wing gymnastic, boxing and cycling teams have given a good account of themselves in the neighbourhood.

Of the 973 apprentices, 529 are due to leave now, having passed for qualification as:—L.A.C. (81); A.C.1. (207); A.C.2. (216); Failed (23); Did not sit examination owing to sickness (2).

Cadetships have been offered to No. 364272, Stephenson, J. T. (Home Town, Croydon); No. 364040, Mutch, J. (Home Town, Dinnet, Aberdeenshire); No. 364333, Worstall, W. R. (Swindon); No. 364361, Weaitt, A. L. (Bexley, Kent); No. 364365, Whittle, F. (Leamington, Warwickshire).

The undermentioned are retained for the advanced course:

No. 364253, Smith, R. Y. J.; No. 363984, Dunkley, B. E.; No. 363907, Allen, R. H.; No. 363980, Henry, R. C.; No. 363966, Hickman, A. A. F.; No. 364335, Watson, P. D.; No. 364172, Stocks, R. B.; No. 364145, Mercer, F. L.; No. 364023, Foreman, H. Z.; No. 363995, King, A. G. W.; No. 364134, McNama, M. G.; No. 363964, Freeman, H. H.; No. 363944, Falconer, R. A. R.; No. 363880, Burrows, C. S. J.

The following is a list of awards for the prizes offered by the Air Ministry:—

- (1) Carpenter rigger.—363829 A/A (Boy) Cook, F. W.
- (2) Fitter, aero engine.—364253 A/A (A.C.2.) Smith, R. Y. J.
- (3) Fitter, armourer.—363831 A/A (A.C.2.) Bickenson, J. S.
- (4) Fitter, driver petrol.—364447 A/A (A.C.2.) Owen, R. W.
- (5) Fitter, rigger.—364040 A/A (A.C.2.) Mutch, J.
- (6) Turner.—363811 A/A (A.C.2.) Barretto, F. W. P.
- (7) Educational subjects.—364023 A/A (A.C.2.) Foreman, H. Z.
- (8) Grand Aggregate.—364253 A/A (A.C.2.) Smith, R. Y. J.



## "SMITH'S"

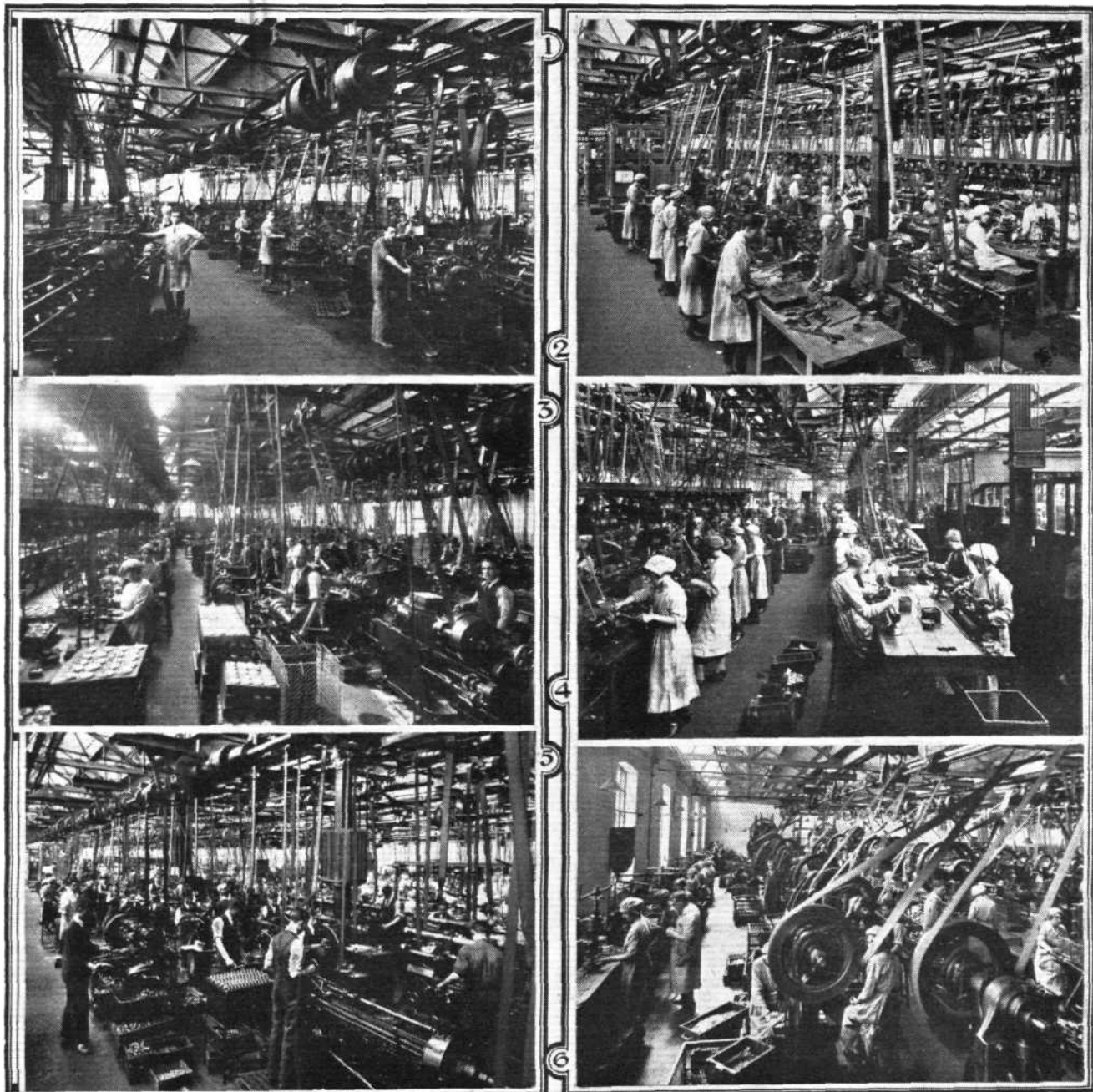
THE world-wide reputation for efficiency and reliability enjoyed by the aeronautical instruments manufactured by S. Smith and Sons (M.A.), Ltd., of Cricklewood, is known, we think, to most readers of *FLIGHT*. In practically every country where there are aircraft, the majority of the latter will be found to be equipped with Smith's aero instruments, either completely or with one or more individual member of the Smith species. Then, at aviation competitions and flying meetings, or in attempts at records, "raids," etc., the name of Smith frequently occurs amongst "firsts" or notable achievements.

Therefore, it must be obvious to all, to have achieved such a position has necessitated years of hard work and research, thorough organisation and large output; and, of course, an extensive plant, especially when it is remembered that this firm does not handle aero instruments alone, being even more well known—and over a much longer period of years—as makers of various motor-car accessories. Thus, many will realise that the factory at Cricklewood is a large one, and we have, on a previous occasion, referred in *FLIGHT* to the fact that the various articles produced there are manufactured *throughout* on the premises, straight from the raw material. In fact, we think we are correct in stating that, with perhaps one or two exceptions, no manufactured or machined components are imported from outside.

All this, as we say, is probably known to our readers, but we think there are few who are aware of the magnitude and range of activity actually prevailing at the Cricklewood factory of Smith's. It must be admitted that we were quite in ignorance as to the state of affairs until a short time ago, when we paid a visit to Cricklewood and made a thorough inspection of the works.

First and foremost, in addition to the enormous output of aero instruments and motor accessories (including a wide range of the famous Smith clocks and watches), we found that many other articles were produced there of totally different character, calling for great variety of processes in manufacture—foundry work, pressing and stamping, rolling and all kinds of machining. Amongst these other items may be mentioned component parts for motor-cars and engines of several well-known makes, one-piece metal casings for electric police-lanterns, and numerous "odd" items outside aviation and motoring.

Secondly, the organisation and equipment of the works were about the most complete we have seen in any engineering works. Some very fine machines, of all descriptions, are installed, including batteries of automatic screw machines; a fine plant of automatic gear cutting for speedometer, clock, etc., movements and even larger work; they also have very big press shops for light and heavy pressings; a very well-



A PEEP INTO THE WORKS OF S. SMITH & SONS (M.A.), LTD.: We show above just a few odd corners of the wonderful factory at Cricklewood, where, amongst a host of other things, the Smith Aero Instruments are made. (1) The Automatic Section. (2) The Small Automatic Section. (3) The Capstan and (4) Bench-Capstan Sections. (5) The Milling Section. (6) The Press Section.

equipped die-casting plant for both yellow and white metal; a remarkable electric spot-welding plant; armature-winding section for dynamos and starter motors; a laboratory for calibrating carburettor jets, and a special section devoted to calibrating, checking, and adjusting all instruments, as well as for carrying out research work.

However, to describe the works in detail is beyond the scope of **FLIGHT**, but we think this brief reference to the fact that S. Smith and Son's factory is thus equipped and at work on such a large scale may be of interest generally, as also, perhaps, the accompanying illustrations of just a few odd corners of this wonderful factory.

## THE SUPERMARINE ROWING REGATTA

In spite of very bad weather conditions the employees of the Supermarine Aviation Works, Ltd. (Woolston) successfully held their annual regatta (Rowing section, Supermarine Sports and Social Club) on July 19, on the river Itchen off the company's works. Of the four events down on the programme, two of lighter character (pair-oared pleasure boat race with lady coxswains and the rubber dinghy race) had to be postponed for a later date owing to the high wind and heavy seas.

However, the two events decided—the galley and gig races—produced some fine sport and, all things considered, good times.

Machine Shop: Stroke, E. Harding; No. 3, G. Carpenter; No. 2, J. Pull; Bow, J. Norris; Cox, A. Winders. Boat Shop "B": Stroke, B. Egerton; No. 3, D. Farwell; No. 2, A. Hart; Bow, F. Galletly; Cox, J. Lister, jnr.

The second event decided was the four-oared gig race for prizes presented by Comdr. J. Bird, and R. Kemp, Esq. Two crews entered for this event, from the Itchen Sailing and Rowing Club (boat *Algerine*) and the Supermarine Wiremen Erectors' shop (boat lent by Saunders' Rowing Club of Cowes). This race was strongly contested, and it was not until the final stretch that the winners, the Itchen Sailing



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**A Supermarine "Side Line":** A four-oared racing galley which was built, in their spare time, by members of the rowing section of the Supermarine Sports Club. It was completed on July 14, and on July 17 its crew succeeded in winning its first race, against members of the local branch of Messrs. Harland and Wolff, the well-known ship-builders.  
■ ■ ■ ■ ■ ■ ■ ■ ■ ■

The course, of about two miles, was up and down the river. Eight crews were entered for the first event, the four-oared galley race for the Easton Challenge Cup, and three preliminary heats were rowed. The first heat was won by Boat Shop "A"—the holders of the Cup—from Metal Shop crew. Boat Shop "B" won the second heat, and Machine Shop won the third heat, thus qualifying for the final. The latter was closely contested, and resulted in the holders of the cup, Boat Shop "A," re-establishing their right of possession. Metal Shop came in a good second, and Boat Shop "B" finished third several lengths behind. The crews were made up as follows:—Boat Shop "A": Stroke, J. Woodford; No. 3, L. Ford; No. 2, G. Jones; Bow, N. Jeanes; Cox, F. Bird.

and Rowing Club, became apparent. The crews were made up as follows:—Itchen: Stroke, Grimes; No. 3, W. Wake; No. 2, W. McCrindle; Bow, C. Misslebrook; Cox, E. Cook. Supermarine: Stroke, L. Diaper; No. 3, B. Drew; No. 2, G. Brown; Bow, B. Lashmar; Cox, T. Wheelings.

In the absence of Mr. H. A. Easton, Alderman W. Moulard, Chairman of the Hampshire and Dorset Amateur Rowing Association, presented the cups. He complimented all concerned, that despite the bad weather the regatta was still a success, and said he hoped to see more of the Supermarine crews in the county rowing competitions. Comdr. Bird, on behalf of the Supermarine Aviation Works, thanked Alderman Moulard for his assistance at their regatta.

## CAPT. E. T. WILLOWS KILLED

It is with the utmost regret that we have to record the death of Capt. E. T. Willows, the pioneer airship designer and pilot, as a result of an accident to a captive balloon which was making ascents at a flower show at Kempston, Bedford, on August 3. In addition to Capt. Willows, who was piloting the balloon, three of the passengers were also killed, and a fourth was seriously injured. The names of the passengers are: Mr. and Mrs. W. F. Harbage, and Mrs. E. Crowsley, all of Kempston (killed); and Mr. E. Crowsley (injured). Just before going to press we received the news that Mr. Crowsley had succumbed to his injuries.

It appears that as the balloon, which was owned by Messrs. G. C. Spencer and Sons, was being hauled down, the trailing ropes fouled a tree, tilting the basket. In order to free the balloon it was forced to ascend a short distance,

and then the winch hauled in once again. This time several people on the ground took hold of the trailing rope in order to assist in hauling down the balloon. This, it seems, put an uneven strain on the netting, which parted, freeing the envelope and causing the basket to crash to earth. Capt. Willows was killed instantly, and three of the passengers died later in hospital.

Capt. Willows, it will be remembered, built and flew the first successful airship in this country in 1905, and in 1910 he flew in his second airship from Cardiff to London. At the end of the same year he accomplished the first cross-channel airship flight, when he flew from England to France in his third airship. After this he did much experimental work with small airships—the forerunners of the famous "Blimps" which did much good work during the war.



# THE ROYAL AIR FORCE



London Gazette, July 27, 1926

**General Duties Branch**

The following are granted short service commissions as Pilot Officers on probation, with effect from and with seniority of July 17:—T. M. Abraham, P. V. Anson, G. M. Buxton, R. J. Carvell, H. H. Ellison, B. G. Farrow, C. G. Grenfell, L. S. Hill, E. J. Martin, K. E. Parker, J. W. Pease, A. A. Rumsey, A. E. S. Moore, N. W. K. Seeman, E. F. Shine, K. R. Soward, D. Taylor, J. R. Whitley, C. C. D. Williams.

Lieut. V. S. Bazalgette, The King's Own Royal Regiment, is granted a temp. commn. as a Flying Officer, on seconding for four years' service with R.A.F.; July 17. Pilot Officer on probation B. E. Moody is confirmed in rank; June 21. Pilot Officer on probation E. J. Pentland resigns his short service commission; July 28.

**Stores Branch**

The following Flying Officers on probation are confirmed in rank (May 24):—L. L. Bray, H. D. Giblett, L. Horwood, M.C. Pilot Officer on probation L. F. Caunter is confirmed in rank; June 22. Flight Lieut. L. A. K. Butt is confirmed in his appointment in Stores Branch; May 24.

**Medical Branch**

J. Twohill, M.B., is granted short service commn. as Flying Officer, for three years on active list, with effect from and with seniority of July 13.

**Chaplains' Branch**

The Rev. C. O. R. Wormald, M.A., resigns his short service commn. and is apptd. an hon. chaplain to R.A.F.; July 28.

**Reserve of Air Force Officers**

W. Dougall is granted a commn. in Class A.A., General Duties Branch, as a Pilot Officer on probation; July 12. Flying Officer L. R. Tait-Cox is confirmed in rank; July 26. The following Flying Officers are transferred from Class A to Class C:—F. H. Pidgeon; July 24. W. J. Walsh; July 25. E. H. Du Heaume, A.F.C.; July 27.

Flying Officer H. P. Dean is transferred from Class A to Class B; June 19. Flight Lieut. J. P. Wells, B.A., relinquishes his commn. on completion of service; July 13. Flying Officer P. R. Cawdell resigns his commn. July 14.

**AUXILIARY AIR FORCE****General Duties Branch**

The following to be Flight Lieut.:—No. 601 County of London (Bombing) Squadron.—R. A. Grosvenor, M.C.; July 27.

**ROYAL AIR FORCE INTELLIGENCE**

**Appointments.**—The following appointments in the Royal Air Force are notified:—

**General Duties Branch**

**Flying Officers:** H. M. S. Wright, to Experimental Section, R.A.E., Farnborough; 26.7.26. J. Summers and P. E. G. Sayer, to No. 22 Squadron, Martlesham Heath; 26.7.26. C. H. F. Nesbit, to Armament and Gunnery Sch., Eastchurch; 19.7.26. T. W. S. Brown, to Armament and Gunnery Sch., Eastchurch; 26.7.26. C. C. K. Dagg, A.F.C., to R.A.F. Base, Gosport, on transfer to Home Estab.; 16.6.26. K. C. McKenzie, M.B.E., to Elec. and Wireless Sch., Flowerdown, on transfer to Home Estab.; 28.6.26. E. J. Howes, to H.Q. Palestine Command, on appointment to Short Service Commn.; 30.6.26. E. J. Howes, to H.Q., Iraq; 8.7.26. V. S. Bazalgette to No. 2 Flying Training Sch., Digby, on appointment to a Temp. Commn. from Army; 17.7.26. L. E. Dowse, to R.A.F. Base, Gosport; 19.7.26. T. J. E. Thornton, to No. 6 Squadron, Iraq; 9.6.26. L. W. Lane, M.C., to R.A.F. Depot, Uxbridge, on transfer to Home Estab.; 6.7.26. M. C. Pascoe, to R.A.F. Base, Calshot, on transfer to Home Estab.; 12.7.26. J. H. Hargroves, to No. 2 Flying Training Sch., Digby; 19.7.26. H. R. McL. Reid, D.F.C., to No. 2 Flying Training Sch., Digby; 19.7.26. C. L. Lowe, D.F.C., and J. H. Caulfield, to No. 5 Flying Training Sch., Sealand; 19.7.26. R. Scott-Taylor, to Armament and Gunnery Sch., Eastchurch; 19.7.26. H. R. D. Waghorn, to Central Flying Sch., Upavon; 19.7.26.

**Pilot Officers:** L. F. T. Price, to No. 56 Squadron, Biggin Hill; 21.7.26. The following Pilot Officers are all posted to the R.A.F. Depot, Uxbridge, on appointment to Short Service Commns. (on probation) with effect, 14.7.26:—B. H. Ashton, B. W. Barton, J. Barton, H. B. Collins, R. W. Conybeer, B. A. J. Crummy, R. C. Edwards, H. V. Forbes, R. C. Greenhalgh, R. G. Hennessy, D.S.O., M.C., D. K. Hewison, C. E. Kay, H. C. Maret, A. O. Moore, L. K. Mundy, C. Pitt-Hardacre, M. M. Restell-Little, F. H. L. Searl, F. S. Smythe, A. J. Vaughan, W. T. Walton, A. R. Ward.

A. H. Campbell-Horsfall, to R.A.F. Depot, Uxbridge, on transfer to Home Estab.; 27.6.26.

**Stores Branch**

Flying Officer W. F. Langdon, to Station H.Q., Northolt; 26.7.26.

**Accountant Branch**

Flight Lieutenant O. K. Griffin, to R.A.F. Depot, Uxbridge, on transfer to Home Estab.; 5.7.26.

**Flying Officers:** J. McL. Murray, to H.Q., Air Defence of Great Britain, Uxbridge; 16.7.26. S. C. George, to Command Accounts Office, Palestine; 7.7.26.

**Medical Branch**

**Flight Lieutenants:** (Hon. Sqdn. Leader) J. Valerie, O.B.E., to R.A.F. Depot, Uxbridge; 19.7.26. A. A. Townsend, M.B., to Marine Aircraft Experimental Estab., Felixstowe; 24.7.26. B. F. Haythornthwaite, M.B., B.A., to R.A.F. British Hospital, Iraq; 29.6.26. J. G. Russell, M.B., B.A., to H.Q., Iraq; 29.6.26.

**Flying Officers:** R. G. Freeman, to R.A.F. Depot, Uxbridge; 19.7.26. J. O. Priestley, D.M.R.E., and J. Twohill, M.B., to Research Lab. and Med. Officers' Sch. of Instruction, on appointment to Short Service Commns.; 13.7.26. C. J. MacQuillan, M.B., B.A., to R.A.F. Depot, Uxbridge, on transfer to Home Estab.; 2.7.26. H. C. Patterson, to Station Commandant, Basrah; 21.6.26. R. J. I. Bell, to No. 100 Squadron, Spittlegate; 20.7.26.

**IN PARLIAMENT****Amateur Airmen and Insurance**

CAPT. GARRO-JONES on July 15 asked the Secretary of State for Air whether he is aware that the main deterrent to large numbers of potential amateur flying men is not only the first costs but the fear of accidents to their machine and of consequent upkeep costs; what would be the cost of providing an all-in insurance policy, covering pilot, machine, and third parties, for a period of twelve months; and whether he has considered the practicability of offering to defray the whole or part of such insurance costs in the case of pilots who have first qualified at an approved school?

Sir P. Sassoon: As regards the first part of the question, the information at the disposal of the Air Ministry is by no means conclusive that the main deterrent to private flying is that stated by the hon. and gallant member; but I do not doubt that the question of upkeep and, in particular, of possible liability in case of accident, must weigh to a considerable extent with potential pilots. As regards the second part, I have made inquiries of the British Aviation Insurance Group and understand that it would not be possible for the insurance companies to adopt a flat comprehensive insurance scheme of the kind suggested. The rate of premium would depend necessarily upon the applicant's flying record, the amount and nature of the flying which he intended to carry out, the type of aircraft to be flown, the locality, and other variable factors. As regards the last part, I am ready to consider any proposal designed to encourage private flying, but I feel grave doubts as to the practicability of adopting the particular suggestion made by the hon. and gallant member.

**British-German Air Traffic**

MR. HORE-BELISHA (for Lieut.-Commander Kenworthy) asked the Secretary of State for Air what progress has been made with the negotiations for the proposed British-German air traffic agreement; whether British commercial aircraft are now permitted to fly freely over German territory; and what progress has been made with the British air line from London to Prague?

Sir P. Sassoon: As regards the first part of the question, the draft of a new British-German air traffic agreement has been prepared, and will shortly be ready for reference to the German authorities for their consideration. As regards the second part, pending the negotiation of this agreement, permission to operate the British air services to Berlin and Cologne has been extended to December 31, but any other flights into or over Germany would have to be specially authorised. As regards the last part, provisional proposals for an air service between Cologne and Prague have recently been formulated as a result of discussions between British and Czechoslovakian representatives, and are now under consideration by the Czechoslovakian Government.

**Germany and International Air Convention**

Sir F. SYKES, on July 26, asked the Secretary of State for Air what

difficulties prevent the adhesion of Germany to the International Air Convention and make it necessary to negotiate a special agreement in respect of civil air operations between Germany and this country?

Sir S. Hoare: The objection which Germany has felt to adhering to the Convention has arisen from the terms of Articles 5 and 34, relative to the admission of non-contracting States' aircraft to a contracting State's territory and to the votes allotted to the Allied Powers upon the International Commission for Air Navigation. Protocols of amendment of both of these Articles have been signed and, I hope, will be shortly ratified by the one State whose ratification is still required. There will then be, so far as I am aware, no difficulties to prevent Germany from adhering to the Convention, but her adherence or non-adherence is primarily a matter for her own consideration.

**England-Australia Flight and Death of Mr. Elliott**

COL. DAY, on July 28, asked the Secretary of State for Air whether it is possible for an award or grant to be made to the mother of the late Mr. Elliott, engineer to Mr. Alan Cobham, with a view to commemorating the valuable work in which he assisted in connection with aviation?

Sir Samuel Hoare: I regret that there are no funds at my disposal from which a grant could be made. It is understood, however, that the late Mr. Elliott was insured by the de Havilland Aircraft Co. and that the claim has been paid.

**R.A.F. Kidbrooke Depot Communist Propaganda**

MR. TASKER asked the Secretary of State for Air whether he is now in a position to state what action he proposes to take with regard to the 11 known members of the Communist factory group stated in Document 33 of the Blue Book on Communist papers to be employed in the Air Force depot at Kidbrooke?

Sir S. Hoare: It is not in the public interest to make a statement on this matter, but I am satisfied that the steps that have already been taken are adequate to safeguard public interests.

Maj. Tasker: Can some action not be taken to stop aspersions upon the honour and loyalty of the majority of the men engaged at this depot?

Sir S. Hoare: I do not think there is any need to take any action. The great majority of the men have the best possible characters, and it is not necessary to afford them any further testimonial.

Mr. Paling: Is it the case that any steps which are being taken against these people are being taken because they are Communists?

Sir S. Hoare: I have nothing to add to the answer I have given.

Sir J. Nall: Is it not obvious that men holding these views are a menace to the safety of the force?

## CORRESPONDENCE

The Editor does not hold himself responsible for opinions expressed by correspondents. The names and addresses of the writers, not necessarily for publication, must in all cases accompany letters intended for insertion in these columns.

### AIRSCREW TIP SPEEDS

[2143] In the article, "Aircraft Tip Speeds" (FLIGHT, July 29), the author has made too broad a statement concerning the decrease of the tip speeds in recent American racing 'planes. The accompanying table shows that since 1920 the tip speeds in such machines have in general continuously increased, and that last year's Schneider Cup racer had a higher tip speed than any previously competing 'plane.

The data in the accompanying table are drawn from the official records.

Plane.	Year.	Engine.	R.p.m.	Prop. Dia. ft. in.	Tip Speed. ft./sec.	Material.
CR	1920	CD-12	1,950	7 6	767	Walnut.
NW	1922	T-2	1,950	7 8	784	Walnut.
R-6	1922	D-12	2,250	7 4	864	Walnut.
CR-1	1922	D-12	2,200	7 10	903	Reed Dural.
F2W	1923	T-2	2,200	8 0	922	Walnut.
CR-2	1923	D-12-A	2,300	7 10	943	Reed Dural.
NW-2	1923	T-2	2,000	9 0	943	Forged Dural.
R2C-1	1923	D-12-A	2,400	7 8	963	Reed Dural.
F2W-2	1924	T-3-A	2,300	7 9	933	Forged Dural.
R2C-2	1924	D-12-A	2,400	8 4	1,047	Reed Dural.
R3C-1	1925	V-1400	2,500	7 8	1,005	Forged Reed
R3C-2	1925	V-1400	2,550	8 0	1,068	Forged Reed

VAL CRONSTEDT

London, July 29, 1926.

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### Board of Trade and Dating of Patents Committee

A COMMITTEE has been appointed by the Board of Trade to consider whether any, and, if so, what change is desirable in the practice of

- dating patents, applied for under Section 91 of the Patents Acts, as of the date of application in the foreign State; and
- dating patents granted upon ordinary applications as of the date of application in the United Kingdom.

The main question which the committee has to examine is whether this practice should be continued or whether patents granted upon applications made under Section 91 should bear some later date, such as the date of application in this country, or the date of grant of the patent, while still giving the applicant the priority as regards inventorship which must be given to him under international arrangements.

The committee will be glad to receive suggestions or representations upon the matters covered by their terms of reference. In considering the questions involved, the committee desires that due regard should be paid to all the interests involved, i.e., the interests of inventors, manufacturers, consumers, and the public generally. Communications should be addressed to the Secretary to the Committee, Mr. B. G. Crewe, The Patent Office, 25, Southampton Buildings, London, W.C. 2.

### Not M. Laurent Eynac

✻ In our issue of July 22, in the article on "The Progress of the Bristol 'Jupiter,'" we erroneously ascribed to M. Laurent Eynac, French Under-Secretary of State for Air, some statements on the subject of the "Jupiter" in France, in the Chamber of Deputies. These statements were actually made by the then War Minister, M. Painleve, and not by M. Eynac. The mistake was due to a misunderstanding.

### Nuri Pasha Al Sa'id

THE Air Council entertained Nuri Pasha al Sa'id, C.M.G., D.S.O., Chief of Staff of the Iraq Army at luncheon at the Savoy Hotel on Thursday, July 22. Sir Samuel Hoare, Secretary of State for Air, presided. Those present were Jafar Pasha el Askeri, C.M.G., Maj.-Gen. A. C. Daly, C.B., C.M.G., Air Marshal Sir John Salmond, K.C.B., C.M.G., C.V.O., D.S.O., Air Commodore C. L. N. Newall, C.M.G., C.B.E., A.M., Air Commodore A. M. Longmore, C.B., D.S.O., and Group Capt. C. S. Burnett, C.B.E., D.S.O.

### R.A.F. Flying Accidents

THE Air Ministry regrets to announce that No. 157679 L.A.C. Robert Lloyd Carr died in Chester Royal Infirmary, on August 1, as the result of injuries sustained on July 13 in an accident at Sealand Garden City to a Snipe of No. 5 Flying Training School, Sealand. At the time of the accident L.A.C. Carr was the pilot and sole occupant of the aircraft.

As the result of an accident at Multan, India, to a Bristol fighter of No. 31 Squadron, Ambala, on August 1, Flying Officer Jack Courtney Marcy, the pilot of the aircraft, and No. 62441 L.A.C. Percy William Edward Crunden were seriously injured. L.A.C. Crunden died of his injuries later in the day.

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### PUBLICATIONS RECEIVED

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Abbreviations: Cyl. = cylinder; i.c. = internal combustion; m. = motor. The numbers in brackets are those under which the Specifications will be printed and abridged, etc.

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